Joe Slayton/ESC/R3/USEPA/US
10/13/2009 05:51 PM To
Larry.a.duffield@wv.gov, Gregory.w.young@wv.gov
cc
Michelle Hoover/R3/USEPA/US, George Long/ESC/R3/USEPA/US,
bcc

Subject
Fw: Q on Nitrate and Nitrite Monitoring

LarryD and GregY: Sorry so slow getting back to you on this issue. I was out most of last week. My take on the information from Michelle Hoover (Water Protection Division, Drinking Water Branch) is highlighted in yellow in the scenarios below namely...[So I think for WV, if combined NO3+NO2 test method is used after the initial monitoring and if the result is >=0.5 mg/L, systems need to analyze nitrite separately.] Sounds like a trigger level however one describes it.

----- Forwarded by Joe Slayton/ESC/R3/USEPA/US on 10/13/2009 05:49 PM -----
Michelle Hoover/R3/USEPA/US
09/24/2009 10:31 AM
To
Joe Slayton/ESC/R3/USEPA/US@EPA
cc

Subject
Fw: Q on Nitrate and Nitrite Monitoring

Joe,

Nancy explained MD's practices in handling nitrite monitoring. From what she described, nitrite needs to be analyzed separately during routine compliance monitoring. I am recapping her messages as follows:

(1) For initial monitoring, systems need to monitor for both nitrate and nitrite. After the initial nitrite analysis is completed, no additional sampling for nitrite is required for water systems with no detections (<0.5 mg/L). [EPA lets states decide on the sampling frequencies for those systems without detections after the initial sampling. Both MD and VA chose no further monitoring for these systems.] Systems with nitrite detections during the initial monitoring need to monitor nitrite quarterly for one year until states determine they are reliably and consistently below the nitrite MCL (1 mg/L). Then systems can go to annual routine monitoring.

MD currently has one system on annual monitoring for nitrite. But they perform discreet testing for both nitrate and nitrite.

[So I think for WV, if combined NO3+NO2 test method is used after the initial monitoring and if the result is >=0.5 mg/L, systems need to analyze nitrite separately.]

(2) For water systems that are seeking a certificate of potability for

new wells, nitrites are performed for all new sources. [VA requires nitrite analysis for all new sources as well. This testing can be considered as equivalent to initial monitoring.]

(3) For water systems that have their point of entry analysis performed using the NO3+NO2 test method, a concentration of 5 mg/L places a water system on increased monitoring for nitrates. It does not impact nitrite monitoring which was previously monitored.

I hope you will see this message in time.

Michelle

----- Forwarded by Michelle Hoover/R3/USEPA/US on 09/24/2009 10:09 AM -----
"Nancy Reilman" <nreilman@mde.state.md.us>
09/24/2009 09:17 AM
To
Michelle Hoover/R3/USEPA/US@EPA
cc
"Allison Tritt" <atritt@mde.state.md.us>, "Linda Ames" <LAmes@mde.state.md.us>
Subject
Re: Q on Nitrate and Nitrite Monitoring

Yes, that is how the nitrite monitoring would have been handled in those situations.

We have one system that is currently on Annual for nitrites. They perform discreet testing for both nitrate and nitrite.

Nancy

>>> <Hoover.Michelle@epamail.epa.gov> 9/24/2009 8:51 AM >>>
Nancy,

Regarding (1). what if during the initial monitoring, systems have nitrite detections (>=0.5 mg/L). Would they be required to monitor nitrite quarterly for one year until they are reliably and consistently below the MCL and then go back to annual sampling? If so and if the system uses combined NO3 & NO2 for routine compliance monitoring and the result is >=0.5 mg/L, would they need to conduct separate analysis for nitrite to figure out its concentration?

Michelle

"Nancy Reilman" <nreilman@mde.state.md.us> To

Michelle Hoover/R3/USEPA/US@EPA
09/24/2009 07:23 AM
cc
"Allison Tritt" <atritt@mde.state.md.us>, "Linda Ames" <LAmes@mde.state.md.us>
Subject
Re: Q on Nitrate and Nitrite Monitoring

Michelle,
We have had similar discussions in the past. However, our interpretation is different. Most laboratories perform a nitrate analysis and not the combined nitrate-nitrite analysis.

1) After the initial nitrite analysis is completed, no additional sampling for nitrites is required for water systems with no detections.

2) For water systems that are seeking a certificate of potability for new wells, nitrites are performed for all new sources.

3) For water systems that have their point of entry analysis performed using the nitrate+nitrite test method, a concentration of 5 mg/L places a water system on increased monitoring for nitrates, It does not impact the nitrite monitoring which was previously monitored.

Nancy

Nancy Reilman
Division Chief
Safe Drinking Water Act Implementation
MDE Water Supply Program

>>> <Hoover.Michelle@epamail.epa.gov> 9/23/2009 5:00 PM >>>

Hi Nancy,

I am trying to find out how states handle nitrate and nitrite monitoring and would like to obtain your insights. The question was raised about whether separate analysis of nitrite is required for routine compliance monitoring if combined NO3/NO2 analysis is chosen and its result is >=0.5 mg/L. Some people are under the impression that the separate nitrite analysis is only required for the initial monitoring and not for the routine compliance monitoring.

According to the preamble of the final Phase II Rule (FR Vol 56, No 20, page 3566, Jan. 30, 1991), during the initial monitoring, systems need

to monitor separately for nitrate and nitrite. So it seems to me that if systems use combined NO3/NO2 and the result is >=0.5 mg/L, they'll need to analyze nitrite separately. Then subtract nitrite result from the combined NO3/NO2 to derive nitrate result. So there should not be issues with initial monitoring.

Then 40 CFR 141.23(e)(3) requires systems to increase to quarterly monitoring if any sample result is >=0.5 mg/L. States can reduce the monitoring frequency to annually after determining the system is reliably and consistently below the MCL (1 mg/L). Based on this, it seems that if combined NO3/NO2 is >=0.5 mg/L, systems need to analyze nitrite separately to ensure that the sample does contain nitrite >=0.5 mg/L.

This is my reading and people may have different interpretations.

Thank you for your help on this.

Michelle
(2150 814-5258